WHAT IS CLAIMED IS:

1. A semiconductor device, comprising:

a portion to be measured by fluctuation in potential;

a wire having one end and the other end connected with said portion to be measured; and

an observation part connected with said one end of said wire,

wherein said observation part includes a pn junction irradiated with a laser beam to detect said fluctuation in potential, and

said pn junction includes a first impurity region of a first conductivity type connected with said one end of said wire and a second impurity region of a second conductivity type.

2. The semiconductor device according to claim 1, wherein said first impurity region is formed within said second impurity region.

3. The semiconductor device according to claim 2, wherein said observation part includes a first MOS transistor having said first impurity region as a source/drain region.

4. The semiconductor device according to claim 3, wherein said first MOS transistor includes a gate electrode set to be the same in potential as said second impurity region.

5. The semiconductor device according to claim 3, further comprising a second

MOS transistor including said portion to be measured,

wherein said first MOS transistor and said second MOS transistor are arranged in a same gate array.

6. The semiconductor device according to claim 5, wherein said portion to be measured is a gate electrode of said second MOS transistor.

7. The semiconductor device according to claim 5, wherein said portion to be measured is a source/drain region of said second MOS transistor.

8. The semiconductor device according to claim 5, wherein said portion to be measured is a well region of said second MOS transistor.

9. The semiconductor device according to claim 1, further comprising a wire to be measured including said portion to be measured.

10. The semiconductor device according to claim 9, wherein said observation part includes:

a third impurity region connected with a second portion to be measured different from said portion to be measured and made conductive with said wire to be measured; and

a fourth impurity region having a conductivity type opposite to a conductivity type of said third impurity region.

11. The semiconductor device according to claim 1, wherein

said first conductivity type is an n type and said second conductivity type is a p type;

said observation part further includes a second pn junction having a p-type third impurity region connected with said wire and an n-type fourth impurity region; and

a first fixed potential is applied to said second impurity region and a second fixed potential higher than said first fixed potential is applied to said fourth impurity region.

12. A method of analyzing the semiconductor device recited in claim 1, comprising the steps of :

(a) irradiating said pn junction with a laser beam; and

(b) measuring light intensity of said laser beam reflected at said pn junction.

13. A method of analyzing the semiconductor device recited in claim 2, comprising the steps of:

(a) irradiating said pn junction with a laser beam; and

(b) measuring light intensity of said laser beam reflected at said pn junction.

14. A method of analyzing the semiconductor device recited in claim 3, comprising the steps of:

(a) irradiating said pn junction with a laser beam; and

(b) measuring light intensity of said laser beam reflected at said pn junction.

15. A method of analyzing the semiconductor device recited in claim 4, comprising the steps of:

(a) irradiating said pn junction with a laser beam; and

(b) measuring light intensity of said laser beam reflected at said pn junction.

16. A method of analyzing the semiconductor device recited in claim 5, comprising the steps of:

(a) irradiating said pn junction with a laser beam; and

(b) measuring light intensity of said laser beam reflected at said pn junction.

17. A method of analyzing the semiconductor device recited in claim 6, comprising the steps of:

(a) irradiating said pn junction with a laser beam; and

(b) measuring light intensity of said laser beam reflected at said pn junction.

18. A method of analyzing the semiconductor device recited in claim 7, comprising the steps of:

(a) irradiating said pn junction with a laser beam; and

(b) measuring light intensity of said laser beam reflected at said pn junction.

19. A method of analyzing the semiconductor device recited in claim 8, comprising the steps of:

(a) irradiating said pn junction with a laser beam; and

(b) measuring light intensity of said laser beam reflected at said pn junction.

20. A method of analyzing the semiconductor device3 recited in claim 9, comprising the steps of:

(a) irradiating said pn junction with a laser beam; and

(b) measuring light intensity of said laser beam reflected at said pn junction.